

Work Order ID 154868***154868***

Page 1

Tuesday, January 03, 2017 1:06:48 PM

Item ID: D3183-5 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Bearing
Start Date: 1/5/2017 Start Qty: 25.00 ***25*** Cust Item ID:
Required Date: 1/17/2017 Req'd Qty: 25.00 ***25*** Customer:
Reference:

Approvals: Process Plan: DAS 21 9-89 Date: JAN 03 2017 Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3183	Rev C1								
100	PURCHASING	0.00							<u>DAS 13 9-89</u>
100									
Purchasing	Memo	0.00							
Purchasing	Issue P/O: <u>34801</u> Bearing as per Dwg D3183Single row, deep groove, Conrad type, shieldedPossible Supplier: NSK P/N 6800ZZCertificate of conformity note is required								
110	Receive & Inspect for Damage & Mat'l Certs	0.00							
110									
Packaging	Memo	0.08							
Packaging	Ensure certificate of conformity is attached								
120	QC6- Inspect dimensions to drawing	0.00							
120									
QC	Memo	0.00							
Quality Control									<u>DAS 38 9-89</u> <u>JAN 03 2017</u>

25 JAN 02 201725x Sp 17-01-625 JAN 03 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:15%;">Skid-tube ☐</td> <td style="width:15%;">Cross tube ☐</td> <td style="width:15%;">Water Jet ☐</td> <td style="width:15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																															
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Work Order ID 154868***154868***

Page 2

Tuesday, January 03, 2017 1:06:48 PM

Item ID: D3183-5

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Bearing

Start Date: 1/5/2017 Start Qty: 25.00

25

Cust Item ID:

Required Date: 1/17/2017 Req'd Qty: 25.00

25

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

Identify as per dwg & Stock Location: Stock

0.00

130

Packaging

Memo

0.04

Packaging

25

~~27~~

JAN 10 2017

DAS

6

9-89

DAS
21
9-89

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Memo

0.42

Quality Control

JAN 10 2017

JMF

17-01-10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Picklist Print

Tuesday, January 03, 2017 1:06:52 PM

Page 1

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154868

Parent Item: D3183-5

D3183-5

Parent Item Name: Bearing

Start Date: 1/5/2017

Required Date: 1/17/2017

Start Qty: 25.00

Required Qty: 25.00

Comments: IPP: A03.03.27New issueKJ/RF

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
6800ZZ *680077* Bearing		Purchased	No			100	Each	0.0000	1	25			
										**	25 x Sp 17-01-6.		

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

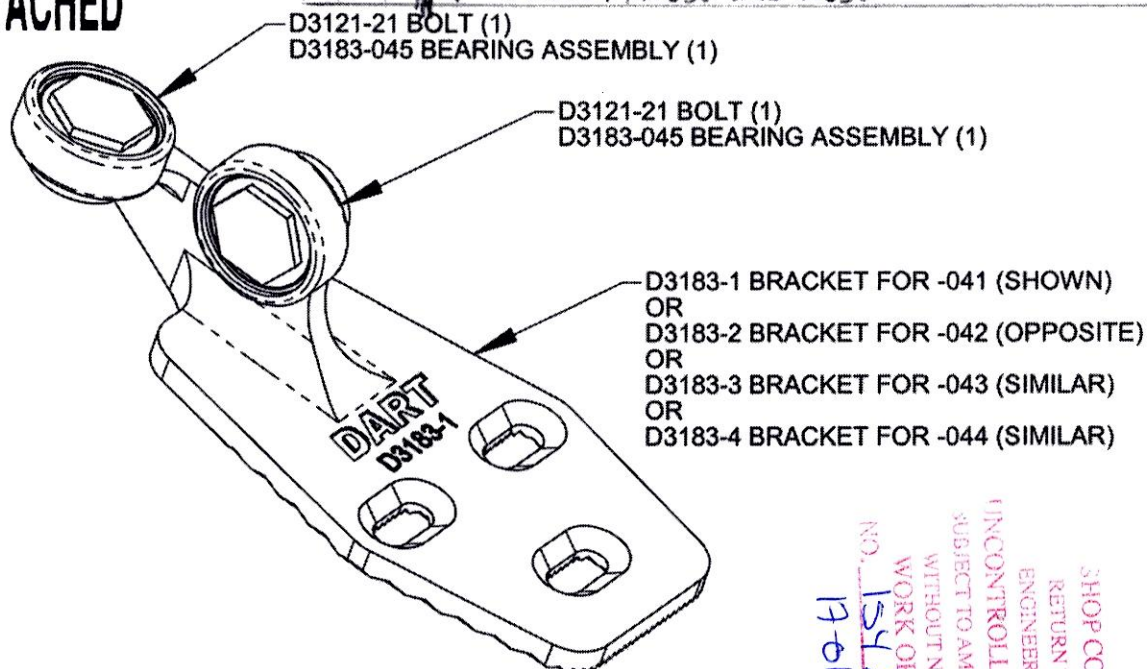
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Fit/Function ☐	Misread ☐																																																																			
Misaligned/off center ☐	Turning Sequence ☐																																																																			

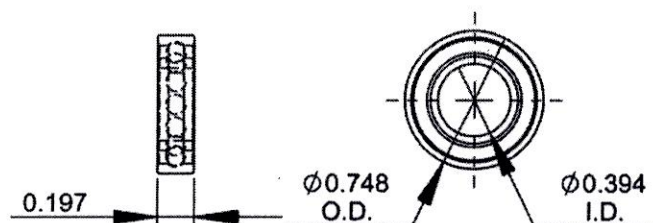
DART

DESIGN #	DRAWN BY CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3183	REV. C SHEET 1 OF 4
DATE 04.02.17		TITLE BRACKET ASSEMBLY	SCALE 1:1
A	03.01.24	NEW ISSUE	
B	03.06.17	REMOVE BEARING; 1.012 WS 0.882	
C	04.02.17	ADD -045/-9; 0.182 WAS 0.431	
CI	# 04.11.09	0.830 WAS 0.850	

RELEASED
04.03.01
DEO ATTACHED

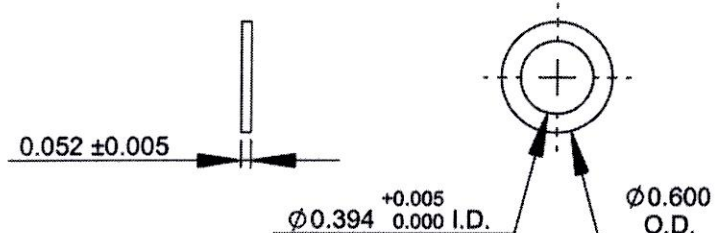


D3183-041 BRACKET ASSEMBLY (SHOWN)
D3183-042 BRACKET ASSEMBLY (OPPOSITE)
D3183-043 BRACKET ASSEMBLY (SIMILAR)
D3183-044 BRACKET ASSEMBLY (SIMILAR)



D3183-5 BEARING:
SPECIFICATION CONTROL DRAWING

- 1) SINGLE ROW, DEEP GROOVE, CONRAD TYPE, SHIELDED
- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
- 3) ALL DIMENSIONS ARE IN INCHES



D3183-7 WASHER

- 1) MATERIAL: AISI 303 ROUND BAR (M303R) ANNEALED
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

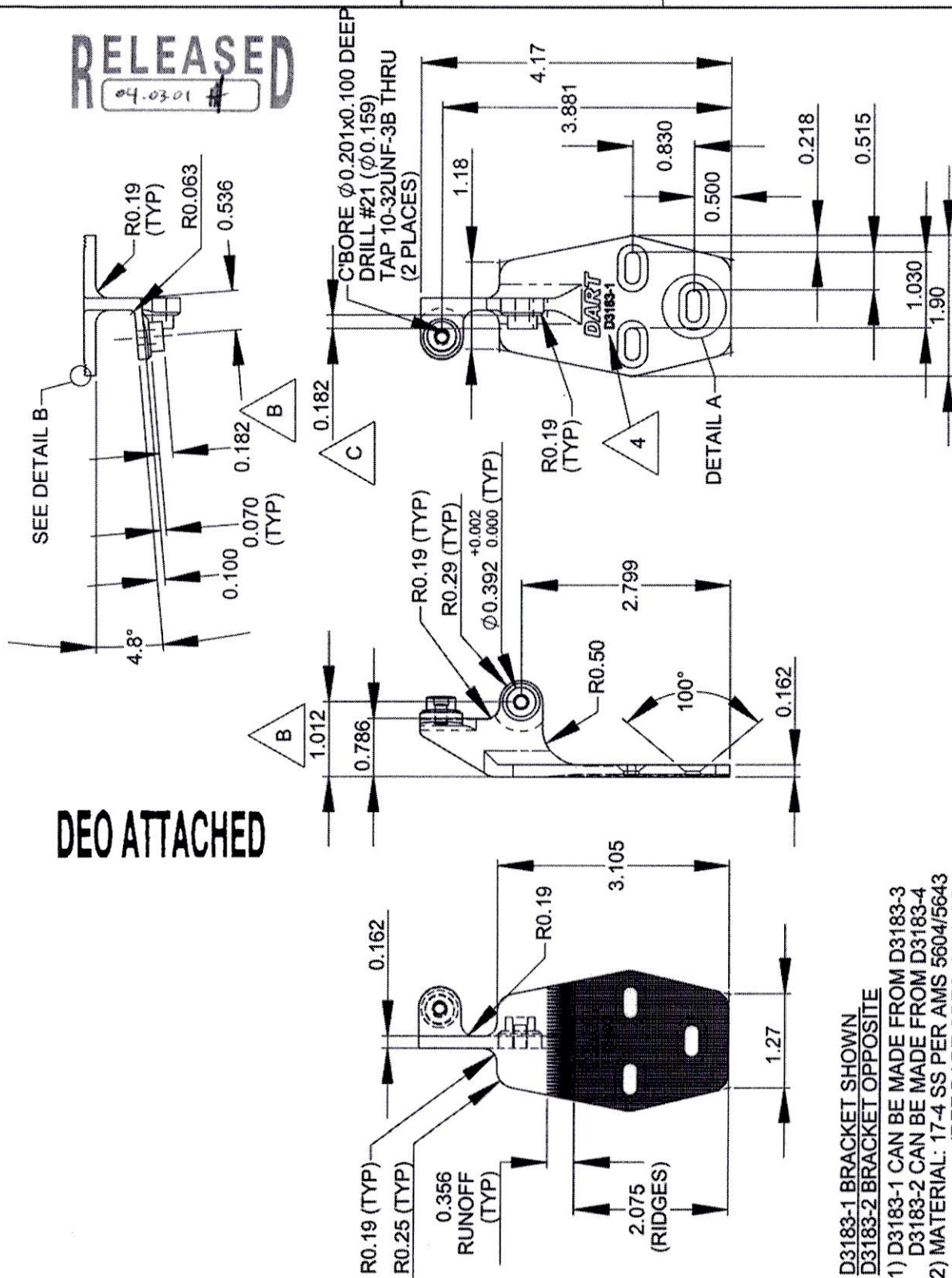
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DESIGN 	DRAWN BY 	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED 	APPROVED 	DRAWING NO. D3183	REV. C SHEET 2 OF 4
DATE 04.02.17		TITLE BRACKET ASSEMBLY SCALE 1:2	

RELEASED
04.03.01 #



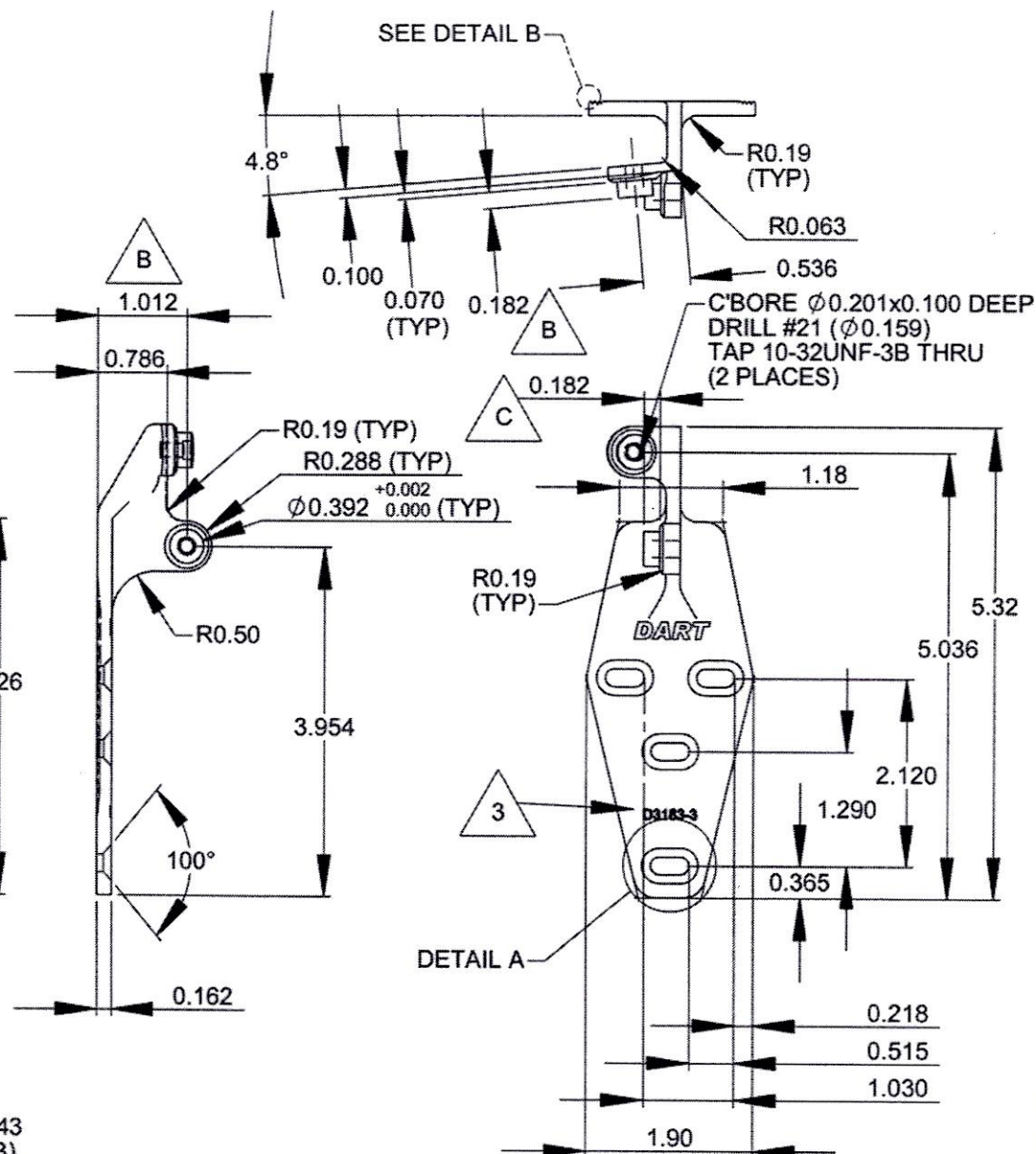
- D3183-1 BRACKET SHOWN
D3183-2 BRACKET OPPOSITE
- 1) D3183-1 CAN BE MADE FROM D3183-3
D3183-2 CAN BE MADE FROM D3183-4
 - 2) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
 - 3) BREAK ALL SHARP EDGES 0.005 TO 0.015
 - 4) ENGRAVE DART P/N & LOGO AS SHOWN
 - 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 6) ALL DIMENSIONS ARE IN INCHES

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DART

DESIGN	DRAWN BY	DART AEROSPACE LTD
CHECKED	APPROVED	HAWKESBURY, ONTARIO, CANADA
DATE 04.02.17	DRAWING NO. D3183	REV. C
	TITLE BRACKET ASSEMBLY	SHEET 3 OF 4
		SCALE 1:2



D3183-3 BRACKET SHOWN
(REPLACES BELL P/N 412-030-304-105)
D3183-4 BRACKET OPPOSITE
(REPLACES BELL P/N 412-030-304-106)

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 3) ENGRAVE DART P/N & LOGO AS SHOWN
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES

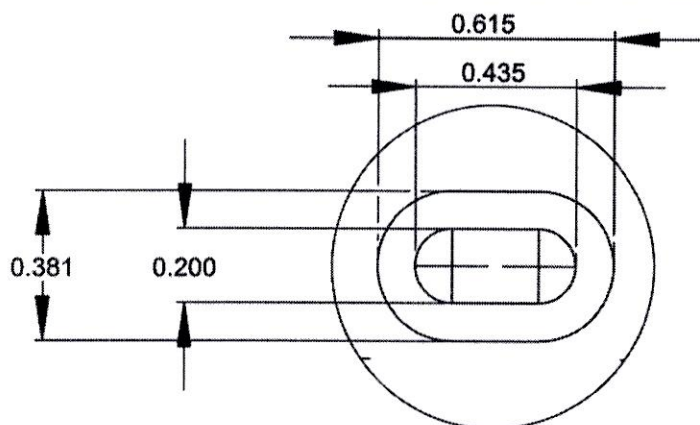
DEO ATTACHED
RELEASED
04.03.01

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DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3183	REV. C SHEET 4 OF 4
DATE 04.02.17		TITLE BRACKET ASSEMBLY	SCALE 1:1

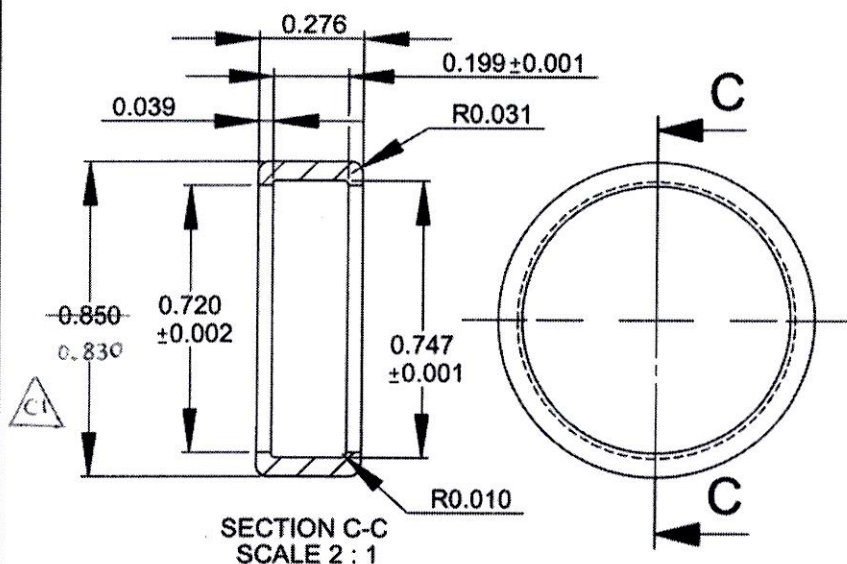
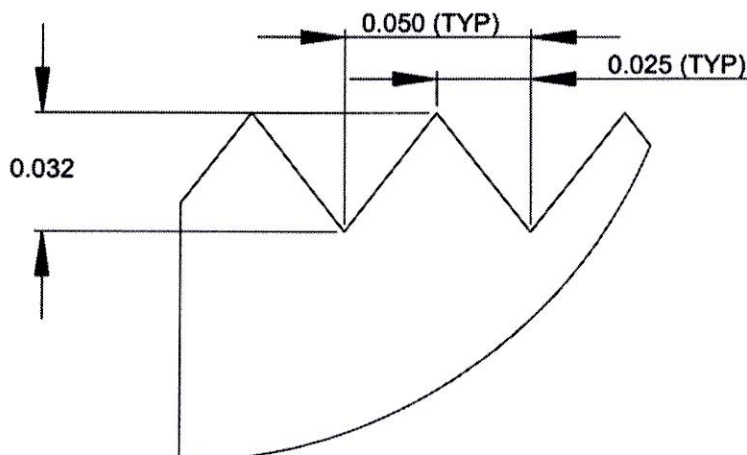


DETAIL A (2 : 1)

RELEASED
04-03-01 *[Signature]*

DEO ATTACHED

DETAIL B (20 : 1)



D3183-9 CAP

- 1) MATERIAL: DELRIN ROD, Ø1.00
(REF DART SPEC. M-DELRIN-R1.00)
- 2) TOLERANCES ARE PER DART QSI 018
UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

D3183-045 BEARING ASSEMBLY

- 1) ASSEMBLE D3183-5 BEARING AND
D3183-9 CAP

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Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO34801

Purchase Order Date 1/4/2017

PO Print Date 1/4/2017

Page Number 2 of 3

Order From :
MAIN INDUSTRIAL SALES LTD.
1475, TESSIER
HAWKESBURY, ON K6A 3S6
CA

VC-MAI001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 613 632 3595

Ship To Contact
Ship To Phone
Ship Via: Yours ppd
Ship Acct:

Buyer Chantal Lavoie
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA - (Free Carrier)

Line Total: \$35.50

4 6800ZZ

Bearing

1/6/2017
Yes
1/6/2017

25.00
Each

\$1.48 \$37.00

AS PER DWG D3183 REV. C
B154868

SP17-01-6.

Line Total: \$37.00

5 PFS-LNNC5/16S1

DAS
38
9-89

Lock Nut

1/6/2017
Yes
1/6/2017

100.00
Each

\$0.09 \$9.10

AS PER DWG D3015 REV. C
B154891

Line Total: \$9.10

6 PFS-LNNC7/16S1

SS Nylock Nut 7/16

1/6/2017
Yes
1/6/2017

25.00
Each

\$0.22 \$5.50

AS PER DWG D3015 REV. C
B154892

Note:

1/4/2017

MAIN INDUSTRIAL SALES LTD.

1475 TESSIER ST.
HAWKESBURY ON K6A 3S6
Phone: (613) 632-3595 Ext. Fax: (613) 632-0262
sales@mainindustrialsales.com

Packing Slip

DATE January 04, 2017
NUMBER 0000202012
CUSTOMER NO. DART

BILL TO:

DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY ON K6A 1K7

SHIP TO:

DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY ON K6A 1K7

(613) 632-5200 Ext.

(613) 632-5200 Ext.

P.O. NUMBER		SALESPERSON	ORDER DATE	REQ. DATE	ORDER NUMBER
34477		EB	04-Jan-17		0000202012
F.O.B.	SHIP VIA		TERMS		
F.O.B. value	OUR TRUCK / LOCAL		NET 30 DAYS		
PART NUMBER DESCRIPTION		LOCATION	UOM	QUANTITY REQ. SHIPPED B.O.	
0-516X112CHBSS 5/16-1 X 1 1/2 18-8 HEX BOLTS YOUR PART #: 5/16-18-015C		26B7	EA	50	50
0-516FWSS 5/16 18-8 FLAT WASHER YOUR PART #: 5/16WC		26A6	EA	300	300
0-716X5CHBSS 7/16-14 x 5" HEX BOLTS 18-8 STAINLESS YOUR PART #: 7/16-14-050C		26C7	EA	25	25
0-68002ZKML BALL BEARING ✓ YOUR PART #: 6800ZZ ✓		6D6	EA	25	25
0-516CNLNSS 5/16-18 18-8 NYLON LOCKNUT YOUR PART #: PFS-LNNC5/16S1		26C6	EA	100	100
0-716CNLNSS 7/16-14 STAINLESS NYLON LOCKNUT YOUR PART #: PFS-LNNC7/16S1		26A7	EA	25	25
0-320017			EA	100	100

SP17-01-6

DAS
38

SP17-01-6

DAS
38
9-89

CERTIFICATE OF COMPLIANCE

RE: 6800-ZZ BEARING

To Whom It May Concern:

Our bearing rings and balls are made of high carbon chromium steel GCr15 which has a chemical composition equivalent to SAE 52100. The hardness of bearing rings is HRC 59-64 and HRC 60-65 for steel balls. Unless specify, bearings are 25-30% filled with Alvania No. 2 grease or Chevron SRI#2 grease or equivalent.

Stella Fan
Phone: 905-629-4255
Fax: 905-629-2358

